costs calculation in economic evaluations, measures used to calculate indirect cost, and difficulties while performing indirect costs estimation. Questionnaires were handed out to participants of the 3rd International Symposium Evidence-Based Health Care in Cracow, mailed to the Polish Pharmacoeconomic Society members and distributed directly to experts. **RESULTS:** Fifty four pharmacoeconomists, health economists and decision-makers returned completed questionnaires. Mean age of respondents 33,3 ± 7,6 years; mean experience in health economics 4,7 ± 5,2 years; 43%(23/54) of responders had non-economic background, 41%(22/54) reported government as a work environment. All (excluding one) responders indicated that indirect costs should be calculated in pharmacoeconomic studies (strongly agree 58%, agree 40%). Experts pointed out that indirect cost were calculated in only 24% of reports and represented on average 22% of total costs. Twenty three (i.e. 43%) responders indicated human capital approach as the best method to estimate cost from societal perspective; friction cost method came second best 11%(6/53); 42%(22/53) respondents had no opinion. The doers of economics evaluations pointed to GDP per capita (11/18), average salary (11/18), and costs of sick pay or injury benefit (11/18) as measures which should be used to value production losses. **CONCLUSIONS:** Indirect costs are considered important but seldom executed component of economic evaluations of health care interventions in Poland. The lack of consensus and widely accepted methods for indirect cost evaluation support further research.

PMC18

ANALYSIS OF TRANSFERABILITY TOOLS FOR COST-EFFECTIVENESS DATA AND COSIDERATION IN KOREA SETTINGS

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OBJECTIVES: Through the increase of economic evaluation studies in Korea, the question of transferability from different settings is becoming more and more important. However, there are factors that may limit the transferability of study results such as variations in the epidemiology, relative pricing and the availability of health care resources. Already published by Welte, Boulenger and Urdahl, transferability tools are useful and easy to check the transferability among countries. This study assessed the transferability with these tools from other settings to Korea settings. **METHODS:** With three selected articles conducted in Belgium, Sweden and USA, we evaluated the transferability to Korean settings using 3 methodologies (Welte, Boulenger and Urdahl) and then identified those factors that can be appropriate to adapt in Korea settings. **RESULTS:** In case of Welte, Belgium and US study showed low correspondence for disease incidence like 0.4% vs. 0.01% in THR. And Sweden study showed different case-mix that the average age of TKR patients were higher than THR but Korea case was opposite. According to Boulenger method, the scores for Belgim, Sweden and US studies were 51.5, 75 and 75.6 separately. Low scores came from the discount and cost mainly due to insufficient description. With Urdahl method, three studies well expressed for decision maker, but Belgium and Sweden studies did not describe the clinical research enough. The United States study explained in detail for the transition probabilities and modeling but the unit price and resource use were not related to Korea setting directly due to different pricing system. **CONCLUSIONS:** Through this evaluation, disease incidence, unit price and resource use showed low transferability in order to transfer to Korea. We could find out that data and methods should be presented in a transparent way to improve transferability.

PMC19

EVALUATING AN ONLINE INCREMENTAL COST-EFFECTIVENESS CALCULATOR STRUCTURED AS A DECISION ANALYTIC TREE THAT IMPLEMENTS MONTE CARLO SIMULATIONS OF KEY VARIABLES

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OBJECTIVES: To evaluate an online, freeware, incremental cost-effectiveness calculator that generates and plots results from a decision tree that utilizes Monte Carlo simulations for the variables related to the success probabilities, costs and utilities. **METHODS:** An online cost-effectiveness calculator and plotter were developed that incorporates a decision tree structure with Monte Carlo simulations to compare two interventions. This decision analysis calculator is available at www.healthstrategy.com. This online tool uses JavaScript algorithms and was based on an MS Excel model description published by Hughes D. His spreadsheet can be downloaded from www.liv.ac.uk/prg/model.xls. For this evaluation, the spreadsheet structure was modified slightly to match the more basic online tree. Log-normal and beta distributions are generated from variable inputs that can be modified in the web-based software that cover costs, utilities and probability of both success and failure for two treatment alternatives. **RESULTS:** The online calculator functions on most computer operating systems with JavaScript enabled browsers. The web-based tool creates a scatter plot of incremental costs versus incremental utilities in cost-effectiveness quadrants, and also graphs a cost-effectiveness acceptability curve. Although the min-max range of cost results were similar between the two tools, the range of utility results was greater with the web computations. The MS Excel spreadsheet model (1000 simulations) versus the online calculator (500 simulations) compared as follows: average incremental costs ($1919 vs. $1885), average incremental utilities:(0.058 vs. 0.054) and average incremental cost effectiveness ratio:($33,086 vs. $34,907). **CONCLUSIONS:** With this online decision tree and Monte Carlo simulator, the user can input their own distribution parameters, then generate and graph incremental costs, incremental utilities and cost effectiveness acceptability curves. This web-based calculator has potential benefit as a basic educational tool for students and health professionals interested in exploring these analytical approaches.

PMC20

IMPLEMENTING A BENCHMARKING MODEL FOR EXPENDITURES OF PRESCRIPTION DRUGS IN AUSTRIA

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OBJECTIVES: Since 2005 Austrian regional sickness funds have been facing an increase in drug prescription costs of 7–8 % per year. In order to analyze these costs we developed a benchmarking system comparing drug prescription costs for 2007 of the regional sickness funds including two ratios split into a price and a volume component. Calculating the ratios at the high aggregate of the second ATC level revealed problems: The total savings potential seemed unrealistically high and could not be traced back to a specific field of action. Therefore, the need for a re-design of the benchmarking system was more than necessary. **METHODS:** Since the cost-function is interpreted as a function of the distribution of prescriptions, price effects can be shown by adjusting the distribution. This is equivalent to shifting prescriptions from specific drugs to others within a cluster. To legitimize this new method, the volume component of each sickness fund is normalized to the average level of prescriptions per beneficiary (ATC level 2), considering the fund's distribution of prescriptions in lower ATC levels. The process of clustering starts with substitutable drugs according to the national eco-list. After that these clusters are combined to groups at first ATC level 5 and then ATC level 4. Within these groups the distributions of the funds are adjusted to the benchmark's distribution. **RESULTS:** In each step of the clustering process we used various approaches, like the use of the eco-list or substitution of drugs by similar agents, to affect the price component. Moreover, the new method evaluates the prescription behaviour of contract physicians for each fund. **CONCLUSIONS:** The original method shows that a savings potential cannot be calculated on an aggregate level. The new method provides a more detailed, step-by-step analysis and allows to identify—combined with medical quality assurance—possible fields of action.

PMC21

REAL AND THEORETICAL COST OF ABSENTEEISM IN POLAND

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OBJECTIVES: Absenteeism costs estimated based on amount of mean sick pay (data provided by Social Insurance Institution—ZUS) were calculated for approximately €2.3 billion in 2007. The aim of this study was to evaluate the difference between absenteeism costs estimated either on mean sick pay or on gross value added in Poland in 2007. **METHODS:** Sickness absence data were derived by ZUS. Alternatively to ZUS data, absenteeism cost was estimated based on gross value added and structure of employed persons by sectors in sections of national economy derived by Central Statistical Office (GUS). Based on ZUS and GUS data we calculated value of missed day per employed in specific sector of the economy. The analysis was based on an assumption that number of missed days includes only working days (252 days per year). Human capital approach was used to estimate the absenteeism costs. Values are presented in Euro (exchange rate: 1 Euro = 4.50 PLN). **RESULTS:** Absenteeism costs were estimated to amount of €12 billion. Cost of missed days of work due to illness per person employed in mining and quarrying (€2062) was more than 5 times higher than cost per person employed in education (€380). Mean cost of absenteeism was estimated to amount of €1012 per employee. Mean cost of absenteeism estimated based on gross value added was more than 6 times higher than those estimated based on amount of funds spent on sick pay (€154 per employee). **CONCLUSIONS:** Given that ZUS data on amount of mean sick pay seem to provide reliable absenteeism costs in Poland, it would seemed that either data based on wages are underestimated or some compensative mechanisms exist in economy that limit indirect cost of sickness absence.

PMC22

DEVELOPMENT OF A SENSITIVE RESOURCE USE QUESTIONNAIRE

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Alcoholism is a chronic disease and the evaluation of its burden usually focuses on long-term co-morbidity and mortality. Clinical Trials evaluating new interventions for alcohol-dependent patients rarely last more than 12 to 24 months. **OBJECTIVES:** Develop a questionnaire capable of capturing principal resource use yet sensitive enough to show short-term economic benefit of drugs developed to reduce consumption in alcohol-dependent patients. **METHODS:** Comprehensive Medline literature search using keywords: Alcohol-related-disorders, economics, cost of illness. Further, experts panel discussions provided additional data. **RESULTS:** Two key cost drivers, hospitalisation and sick leaves were identified by the literature review. Expert findings related to costs of social consequences were incorporated. These three important resources were included in the questionnaire in addition to standard medical resource use consumption input. Finally, the following items were included: consultation visits, hospitalisations, sick leaves and working situation, living situation, social environment, accidents, arrests and domestic violence. The recall period is 3 months. **DISCUSSION:** A great deal of information is collected in this questionnaire in order to capture all relevant resources. Tests to validate the questionnaire in a real-life setting will be conducted (face validity, concurrent validity, and test-retest) in a cohort of dependent